

ABSTRACT

A system and method of operation are provided for using a network interface to process incoming messages sent by a client device to a network server. The network interface includes a First-In-First-Out (FIFO) buffer for assembling the incoming messages from a serial to a parallel form and a regular-expression pattern matching circuit connected to the FIFO buffer. The regular-expression pattern matching circuit is adapted to, concurrent with the assembly of the incoming messages from a serial to a parallel form, perform HTTP message header recognition and parsing, and provide to the server parsed HTTP message headers in a compact form. The regular-expression pattern matching circuit generates client response messages automatically based on a content of the parsed HTTP message headers. The system performance and quality of service of the network server is improved.